

REMARKS

The specification has been corrected to insert titles of sections in accordance with the requirements of the MPEP. No new matter is introduced by this amendment.

Claim 12 to 25 are currently active in the application. By the present amendment, claims 12, 13, 18, 19, 22 and 23 have been amended responding to the rejections.

Claims 12-25 have been rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, the Examiner objected use of the words “either”, “or” and “may” in the description of the action of the recited “receiving antenna array”, as making claim 12 indefinite and unclear. The similarly the Examiner criticizes claims 18 and 22.

Additionally, the Examiner finds notation “>45°” in claims 19 and 23 as unclear in context since “the shorthand “ form is used .

Furthermore, throughout claims 12-25 the Examiner points that the phrase “secondary radiation area” is not clear in context. Claims 14 and 13 are found unclear for using the phrase “single antenna” and dependent claims 13-17, 19-21 and 23-25 are unclear since they respectively depend from unclear independent claims 12, 18 and 22.

Responding to these rejections claims 12, 13, 18, 19, 22 and 23 have been amended. The Applicant believes that all listed reason for rejection have been addressed by this amendment. The Examiner is respectfully requested to reconsider the application in view of the above amendments and further remarks.

Claims 12, 15, 16, 18, and 22 have been rejected under 35 U.S.C. §102(b) as being anticipated by Agravante et al. (US Patent 5,767,793) or Komatsu et al. or Agravanter et al. (US Patent 5,949,011) or Wagner or Aoyagi et al. This rejection is respectfully traversed based on the following discussion.

Subject matter of the present invention is a transmitting antenna which is implemented as a planar antenna and therefore has a transmitting antenna array of antenna patches. Said transmitting antenna is driven so that a main radiation area and a second radiation area is transmitted from one and the same antenna. For this

the antenna is driven as a squinting antenna.

Therefore, it is possible to produce a specific radiation area for the single transmitting antenna which has the (normal) main radiation area and in addition a secondary radiation area at a different angle with respect to the main transmission direction of the antenna.

The Applicant respectfully submits that the prior art relied on by the Examiner does not disclose the present invention. Specifically, the patents to Agravanter et al. (US Patent 5,767,793 and US Patent 5,940,011) only disclose several transmitting areas, where for each transmission area an antenna is assigned. Therefore, Agravanter et al. fail to disclose a transmitting transmission signals into two different areas. The transmitting antennas are simultaneously used as receiving antennas.

The patent to Aoyagi et al. (U.S. Patent 5,959,571) discloses a system having a transmitting antenna and three receiving antennas where the receiving antennas have a determined reception area. The reception areas may overlap. An angle information is obtained by determining which reception antenna has received the reflected signal. The overlapping areas serve for differentiating intermediate angular positions from the main angular positions of the reception areas (if two antennas receive echo signals the object is supposed to be in the overlapping area of said both antennas). Obviously, this system does not work if more than one object is present. Please note that there is no hint of using a squinting antenna for providing two transmission areas by one transmission antenna. On the contrary, in column 3, lines 17 to 27 of Aoyagi et al. it is explicitly stated that the sidelobes may result in problems and should consequently be suppressed.

Please recall that according to the present invention a sidelobe of the transmitting antenna is enhanced by driving said antenna as a squinting antenna so as to provide for a useful secondary transmission area by said sidelobe.

The patent to Komatsy et al. (US Patent 5,896,104) discloses the use of four transceivers having four antennas for defining transmission areas around a vehicle. It is only disclosed to use planar antennas having antenna pads for the transmitting antennas and the receiving antennas. Komatsu et al. fail to disclose

the use of a sidelobe enhanced for forming a secondary transmission area.

The reference to Wagner (US Patent 5,949,365) discloses transmission areas which are arranged adjacent to each other and may overlap. Three of said antennas serve as transmitting as well as receiving antennas whereas two of said antennas work as transmitting antennas, only. Also, Wagner fails to disclose the use of a sidelobe for forming a secondary transmission area.

Therefore, there is no disclosure in the prior art documents for driving the transmitting antenna as a squinting antenna so as to produce the main transmission area and the secondary transmission area by means one and the same antenna.

Furthermore, MPEP §2131 mandates that “TO ANTICIPATE A CLAIM, THE REFERENCE MUST TEACH EVERY ELEMENT IN THE CLAIM”.

Furthermore, the MPEP, citing Richardson v. Suzuki Motor Co., 9 USPQ2d 1051, 1053 (Fed. Cir. 1987), states “[t]he identical invention must be shown in as complete detail as is contained in the ...claim” (emphasis added)

Here, none of the structural limitations highlighted in Applicant’s claims above are taught or suggested by Agravante et al. (US Patent 5,767,793), Komatsu et al.(U.S. Patent 5,896,104) , Agravante et al. (U.S. Patent 5,940,011), Wagner (U.S. Patent 5,949,365) or Aoyagi et al. (U.S. Patent 5,959,571). It is therefore respectfully submitted that the rejections to the claims are improper under 35 U.S.C. §102 as the above-cited references as they cannot anticipate the rejected claims since they do not “teach the identical invention”. Further, since the above limitations are not taught or suggested, the above-cited references cannot be used to support a *prima facie* obviousness under 35 U.S.C. §103. Based on the above discussion with reference to the MPEP guidelines, it is respectfully requested that the rejections based on 35 U.S.C. §102 be withdrawn.

Claims 13, 14, 17, 19-21, and 23-25 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Agravante et al. (US Patent 5,767,793) or Komatsu et al.(U.S. Patent 5,896,104) or Agravante et al. or Wagner (U.S. Patent 5,949,365) or Aoyagi et al. (U.S. Patent 5,959,571). This rejection is respectfully traversed.

All the cited references have been distinguished above. It was shown that there is no reference shows a transmitting antenna as a squinting antenna so as to

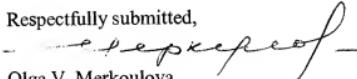
produce the main transmission area and the secondary transmission area by means one and the same antenna. Therefore, none of the references listed above can be used to support a *prima facie* obviousness.

In view of the foregoing, it is respectfully requested that the application be reconsidered, that claims 12 to 25 be allowed, and that the application be passed to issue.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

A provisional petition is hereby made for any extension of time necessary for the continued pendency during the life of this application. Please charge any fees for such provisional petition and any deficiencies in fees and credit any overpayment of fees to Attorney's Deposit Account No. 50-2041 (Whitham, Curtis, Christofferson & Cook, P.C.).

Respectfully submitted,


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